

Present Value of Difference in Income
John Curtis

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Present Value of Difference in Income

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Summary:

In this report I calculated the present value of Mr. Curtis's expected earnings assuming his employment at Fatz Café had continued and the present value of his expected earnings given his current situation. The present value of the difference between the two amounts is **\$952,585**. (Due to rounding to the nearest dollar, the sums shown may not add to the components shown.)

Information Relied Upon:

I have reviewed information concerning Mr. Curtis which includes:

A questionnaire completed by Mr. Curtis; and,
Tax Returns for 2007 and 2013;

I have also reviewed:

Interest rates from the Board of Governors of the Federal Reserve System;
Bureau of Labor Statistics, Consumer Price index; and,
Bureau of Labor Statistics, Consumer Expenditures data;

In addition, I have spoken with Mr. Curtis.

Present Value of Difference in Earnings:

Mr. Curtis's annual wages at Fatz Café, according to his 2012 and 2013 W-2s, were \$82,108 and \$74,331 respectively. These two amounts were averaged and put in current purchasing power dollars. Health insurance value of \$6,105 is added to the wages along with the employer's contribution to benefits of 7.65 percent of wages. Expenses of \$4,536 are subtracted from wages to arrive at the annual earnings amounts in the column *Expected Earnings (No Future Inflation)* in Table 1. The entry at age 50 is less as it is for .13 of a year.

The sum of *Expected Earnings (No Future Inflation)* in Table 1 is \$1,417,090. Using an inflation rate of 3.0% I calculated the series *Expected Earnings (Future Inflation)* in Table 2. The *Expected Earnings (Future Inflation)* is \$2,107,529. The amount required to provide the stream was calculated using the same real interest rate, .70 percent, in the no-inflation and inflation situations; the U.S. Supreme Court suggests the use of real rates (see *Jones & Laughlin Steel Corp. v. Pfeifer*). The rate of inflation does not affect the present value required for compensation given the real rate (see Albrecht and Krueger,

The Earnings Analyst and Albrecht and Moorhouse, *Journal of Forensic Economics*), which fact is recognized by the U.S. Supreme Court.

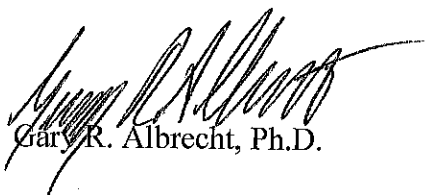
The *Present Value of Expected Earnings* is **\$1,354,858** in both the inflation and no-inflation situations, see Tables 1 and 2. This amount may be referred to as the present value of the amount Mr. Curtis would have been expected to earn had he remained at Fatz Café.

Using Mr. Curtis's current earnings his annual earnings are expected to be \$26,642, see Table 6. This amount consists of earnings at Merle Norman, a part-time bartending job, and a restaurant serving job. The present value of the earnings is **\$402,274**, see Tables 6 and 7.

Conclusion:

Mr. Curtis discontinued working at Fatz Café. Mr. Curtis currently has other employment. Mr. Curtis is not expected to earn as much currently as he would have earned at Fatz Café. The present value of the difference is reported in Table 11. The *Present Value of Difference in Total Expected Earnings* is **\$952,585**.

The calculations may change if additional information becomes available. Please do not hesitate to contact me if any questions arise.



Gary R. Albrecht, Ph.D.

(Table 1)

**Present Value of Expected Earnings
if Employment at Fatz Café had Continued
(No Future Inflation)**

| Age | Expected Earnings (No Future Inflation) | Real Discount Factor | Present Value of Expected Earnings | Cumulative Present Value of Expected Earnings |
|-----|--|----------------------|------------------------------------|---|
| 50 | 11,421 | 1.00000 | 11,421 | 11,421 |
| 51 | 87,854 | 1.00000 | 87,854 | 99,275 |
| 52 | 87,854 | 1.00000 | 87,854 | 187,130 |
| | <u>187,130</u> | | <u>187,130</u> | |
| 53 | 87,854 | 0.99305 | 87,244 | 87,244 |
| 54 | 87,854 | 0.98615 | 86,637 | 173,881 |
| 55 | 87,854 | 0.97929 | 86,035 | 259,916 |
| 56 | 87,854 | 0.97248 | 85,437 | 345,352 |
| 57 | 87,854 | 0.96572 | 84,843 | 430,195 |
| 58 | 87,854 | 0.95901 | 84,253 | 514,449 |
| 59 | 87,854 | 0.95234 | 83,667 | 598,116 |
| 60 | 87,854 | 0.94572 | 83,086 | 681,202 |
| 61 | 87,854 | 0.93915 | 82,508 | 763,710 |
| 62 | 87,854 | 0.93262 | 81,935 | 845,645 |
| 63 | 87,854 | 0.92614 | 81,365 | 927,010 |
| 64 | 87,854 | 0.91970 | 80,800 | 1,007,810 |
| 65 | 87,854 | 0.91331 | 80,238 | 1,088,048 |
| 66 | 87,854 | 0.90696 | 79,680 | 1,167,728 |
| | <u>1,229,960</u> | | <u>1,167,728</u> | |
| | <u>1,417,090</u> | | <u>1,354,858</u> | |

(Table 2)

**Present Value of Expected Earnings
if Employment at Fatz Café had Continued
(Future Inflation)**

| Age | Expected Earnings (No Future Inflation) | Nominal Discount Factor | Present Value of Expected Earnings | Cumulative Present Value of Expected Earnings |
|-----|---|-------------------------------|---|--|
| 50 | 11,421 | 1.00000 | 11,421 | 11,421 |
| 51 | 87,854 | 1.00000 | 87,854 | 99,275 |
| 52 | 87,854 | 1.00000 | 87,854 | 187,130 |
| | <u>187,130</u> | | <u>187,130</u> | |
| 53 | 90,490 | 0.96412 | 87,244 | 87,244 |
| 54 | 93,205 | 0.92954 | 86,637 | 173,881 |
| 55 | 96,001 | 0.89619 | 86,035 | 259,916 |
| 56 | 98,881 | 0.86404 | 85,437 | 345,352 |
| 57 | 101,847 | 0.83304 | 84,843 | 430,195 |
| 58 | 104,903 | 0.80316 | 84,253 | 514,449 |
| 59 | 108,050 | 0.77434 | 83,667 | 598,116 |
| 60 | 111,291 | 0.74656 | 83,086 | 681,202 |
| 61 | 114,630 | 0.71978 | 82,508 | 763,710 |
| 62 | 118,069 | 0.69396 | 81,935 | 845,645 |
| 63 | 121,611 | 0.66906 | 81,365 | 927,010 |
| 64 | 125,259 | 0.64506 | 80,800 | 1,007,810 |
| 65 | 129,017 | 0.62192 | 80,238 | 1,088,048 |
| 66 | 132,888 | 0.59961 | 79,680 | 1,167,728 |
| | <u>1,920,400</u> | | <u>1,167,728</u> | |
| | 2,107,529 | | 1,354,858 | |

(Table 3)

Disposition of Present Value Amount (No Inflation)

| Age | Beginning Balance | Interest Earned | Income Loss | Ending Balance |
|-----|----------------------|--------------------|----------------|-------------------|
| 50 | 1,354,858 | 0 | 11,421 | 1,343,437 |
| 51 | 1,343,437 | 0 | 87,854 | 1,255,582 |
| 52 | 1,255,582 | 0 | 87,854 | 1,167,728 |
| 53 | 1,167,728 | 8,174 | 87,854 | 1,088,048 |
| 54 | 1,088,048 | 7,616 | 87,854 | 1,007,810 |
| 55 | 1,007,810 | 7,055 | 87,854 | 927,010 |
| 56 | 927,010 | 6,489 | 87,854 | 845,645 |
| 57 | 845,645 | 5,920 | 87,854 | 763,710 |
| 58 | 763,710 | 5,346 | 87,854 | 681,202 |
| 59 | 681,202 | 4,768 | 87,854 | 598,116 |
| 60 | 598,116 | 4,187 | 87,854 | 514,449 |
| 61 | 514,449 | 3,601 | 87,854 | 430,195 |
| 62 | 430,195 | 3,011 | 87,854 | 345,352 |
| 63 | 345,352 | 2,417 | 87,854 | 259,916 |
| 64 | 259,916 | 1,819 | 87,854 | 173,881 |
| 65 | 173,881 | 1,217 | 87,854 | 87,244 |
| 66 | 87,244 | 611 | 87,854 | 0 |

(Table 4)

Disposition of Present Value Amount (Inflation)

| Age | Beginning Balance | Interest Earned | Income Loss | Ending Balance |
|-----|----------------------|--------------------|----------------|-------------------|
| 50 | 1,354,858 | 0 | 11,421 | 1,343,437 |
| 51 | 1,343,437 | 0 | 87,854 | 1,255,582 |
| 52 | 1,255,582 | 0 | 87,854 | 1,167,728 |
| 53 | 1,167,728 | 43,451 | 90,490 | 1,120,689 |
| 54 | 1,120,689 | 41,701 | 93,205 | 1,069,186 |
| 55 | 1,069,186 | 39,784 | 96,001 | 1,012,969 |
| 56 | 1,012,969 | 37,693 | 98,881 | 951,781 |
| 57 | 951,781 | 35,416 | 101,847 | 885,350 |
| 58 | 885,350 | 32,944 | 104,903 | 813,391 |
| 59 | 813,391 | 30,266 | 108,050 | 735,607 |
| 60 | 735,607 | 27,372 | 111,291 | 651,688 |
| 61 | 651,688 | 24,249 | 114,630 | 561,307 |
| 62 | 561,307 | 20,886 | 118,069 | 464,125 |
| 63 | 464,125 | 17,270 | 121,611 | 359,784 |
| 64 | 359,784 | 13,388 | 125,259 | 247,912 |
| 65 | 247,912 | 9,225 | 129,017 | 128,120 |
| 66 | 128,120 | 4,767 | 132,888 | 0 |

(Table 5)

Summary

| | |
|---|---------|
| Historical Expected Earnings (Back Pay) if Employment at Fatz Café had Continued (Age 50.87 to Age 53) | 187,130 |
|---|---------|

| | |
|--|------------------|
| Present Value of Future Expected Earnings (Front Pay) if Employment at Fatz Café had Continued (Age 53 to Age 67) | <u>1,167,728</u> |
|--|------------------|

| | |
|--|-----------|
| Present Value of Total Expected Earnings if Employment at Fatz Café had Continued (Age 50.87 to Age 67) | 1,354,858 |
|--|-----------|

(Table 6)

**Present Value of Expected Earnings
Given Current Situation
(No Future Inflation)**

| Age | Expected Earnings (No Future Inflation) | Real Discount Factor | Present Value of Expected Earnings | Cumulative Present Value of Expected Earnings |
|-----|---|----------------------------|--|--|
| 50 | 0 | 1.00000 | 0 | 0 |
| 51 | 21,523 | 1.00000 | 21,523 | 21,523 |
| 52 | 26,642 | 1.00000 | 26,642 | 48,164 |
| | <u>48,164</u> | | <u>48,164</u> | |
| | | | | |
| 53 | 26,642 | 0.99305 | 26,456 | 26,456 |
| 54 | 26,642 | 0.98615 | 26,272 | 52,729 |
| 55 | 26,642 | 0.97929 | 26,090 | 78,818 |
| 56 | 26,642 | 0.97248 | 25,908 | 104,727 |
| 57 | 26,642 | 0.96572 | 25,728 | 130,455 |
| 58 | 26,642 | 0.95901 | 25,549 | 156,005 |
| 59 | 26,642 | 0.95234 | 25,372 | 181,377 |
| 60 | 26,642 | 0.94572 | 25,195 | 206,572 |
| 61 | 26,642 | 0.93915 | 25,020 | 231,592 |
| 62 | 26,642 | 0.93262 | 24,846 | 256,439 |
| 63 | 26,642 | 0.92614 | 24,674 | 281,113 |
| 64 | 26,642 | 0.91970 | 24,502 | 305,615 |
| 65 | 26,642 | 0.91331 | 24,332 | 329,947 |
| 66 | 26,642 | 0.90696 | 24,163 | 354,109 |
| | <u>372,981</u> | | <u>354,109</u> | |
| | | | | |
| | <u>421,145</u> | | <u>402,274</u> | |

(Table 7)

**Present Value of Expected Earnings
Given Current Situation
(Future Inflation)**

| Age | Expected Earnings (No Future Inflation) | Nominal Discount Factor | Present Value of Expected Earnings | Cumulative Present Value of Expected Earnings |
|-----|---|-------------------------------|---|--|
| 50 | 0 | 1.00000 | 0 | 0 |
| 51 | 21,523 | 1.00000 | 21,523 | 21,523 |
| 52 | 26,642 | 1.00000 | 26,642 | 48,164 |
| | <u>48,164</u> | | <u>48,164</u> | |
| 53 | 27,441 | 0.96412 | 26,456 | 26,456 |
| 54 | 28,264 | 0.92954 | 26,272 | 52,729 |
| 55 | 29,112 | 0.89619 | 26,090 | 78,818 |
| 56 | 29,985 | 0.86404 | 25,908 | 104,727 |
| 57 | 30,885 | 0.83304 | 25,728 | 130,455 |
| 58 | 31,811 | 0.80316 | 25,549 | 156,005 |
| 59 | 32,766 | 0.77434 | 25,372 | 181,377 |
| 60 | 33,749 | 0.74656 | 25,195 | 206,572 |
| 61 | 34,761 | 0.71978 | 25,020 | 231,592 |
| 62 | 35,804 | 0.69396 | 24,846 | 256,439 |
| 63 | 36,878 | 0.66906 | 24,674 | 281,113 |
| 64 | 37,984 | 0.64506 | 24,502 | 305,615 |
| 65 | 39,124 | 0.62192 | 24,332 | 329,947 |
| 66 | 40,298 | 0.59961 | 24,163 | 354,109 |
| | <u>565,190</u> | | <u>354,109</u> | |
| | <div style="border: 1px solid black; padding: 2px;">613,354</div> | | <div style="border: 1px solid black; padding: 2px;">402,274</div> | |

(Table 8)

Disposition of Present Value Amount (No Inflation)

| Age | Beginning Balance | Interest Earned | Income Loss | Ending Balance |
|-----|----------------------|--------------------|----------------|-------------------|
| 50 | 402,274 | 0 | 0 | 402,274 |
| 51 | 402,274 | 0 | 21,523 | 380,751 |
| 52 | 380,751 | 0 | 26,642 | 354,109 |
| 53 | 354,109 | 2,479 | 26,642 | 329,947 |
| 54 | 329,947 | 2,310 | 26,642 | 305,615 |
| 55 | 305,615 | 2,139 | 26,642 | 281,113 |
| 56 | 281,113 | 1,968 | 26,642 | 256,439 |
| 57 | 256,439 | 1,795 | 26,642 | 231,592 |
| 58 | 231,592 | 1,621 | 26,642 | 206,572 |
| 59 | 206,572 | 1,446 | 26,642 | 181,377 |
| 60 | 181,377 | 1,270 | 26,642 | 156,005 |
| 61 | 156,005 | 1,092 | 26,642 | 130,455 |
| 62 | 130,455 | 913 | 26,642 | 104,727 |
| 63 | 104,727 | 733 | 26,642 | 78,818 |
| 64 | 78,818 | 552 | 26,642 | 52,729 |
| 65 | 52,729 | 369 | 26,642 | 26,456 |
| 66 | 26,456 | 185 | 26,642 | 0 |

(Table 9)

Disposition of Present Value Amount (Inflation)

| Age | Beginning Balance | Interest Earned | Income Loss | Ending Balance |
|-----|----------------------|--------------------|----------------|-------------------|
| 50 | 402,274 | 0 | 0 | 402,274 |
| 51 | 402,274 | 0 | 21,523 | 380,751 |
| 52 | 380,751 | 0 | 26,642 | 354,109 |
| 53 | 354,109 | 13,176 | 27,441 | 339,845 |
| 54 | 339,845 | 12,646 | 28,264 | 324,227 |
| 55 | 324,227 | 12,064 | 29,112 | 307,179 |
| 56 | 307,179 | 11,430 | 29,985 | 288,624 |
| 57 | 288,624 | 10,740 | 30,885 | 268,479 |
| 58 | 268,479 | 9,990 | 31,811 | 246,658 |
| 59 | 246,658 | 9,178 | 32,766 | 223,070 |
| 60 | 223,070 | 8,300 | 33,749 | 197,622 |
| 61 | 197,622 | 7,354 | 34,761 | 170,214 |
| 62 | 170,214 | 6,334 | 35,804 | 140,744 |
| 63 | 140,744 | 5,237 | 36,878 | 109,103 |
| 64 | 109,103 | 4,060 | 37,984 | 75,179 |
| 65 | 75,179 | 2,797 | 39,124 | 38,852 |
| 66 | 38,852 | 1,446 | 40,298 | 0 |

(Table 10)

Summary Given Current Situation

| | |
|---|----------------|
| Historical Earnings (Back Pay) Given Current Situation (Age 50.87 to Age 53) | 48,164 |
| Present Value of Future Expected Earnings (Front Pay) Given Current Situation (Age 53 to Age 67) | <u>354,109</u> |
| Present Value of Total Expected Earnings Given Current Situation (Age 50.87 to Age 67) | 402,274 |

(Table 11)

Summary

| | |
|--|-----------|
| Historical Expected Earnings (Back Pay) if Employment at Fatz Café had Continued (Age 50.87 to Age 53) | 187,130 |
| Historical Earnings (Back Pay) Given Current Situation (Age 50.87 to Age 53) | 48,164 |
| Difference in Historical Earnings (Back Pay) | 138,966 |
| Present Value of Future Expected Earnings (Front Pay) if Employment at Fatz Café had Continued (Age 53 to Age 67) | 1,167,728 |
| Present Value of Future Expected Earnings (Front Pay) Given Current Situation (Age 53 to Age 67) | 354,109 |
| Difference in Present Value of Future Expected Earnings (Front Pay) | 813,619 |
| Present Value of Difference in Total Expected Earnings | 952,585 |